

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P. Do. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/619,269	07/14/2003	Hiroyuki Baba	33627US1	33627US1 7069	
116	7590 03/03/2004		EXAMINER		
PEARNE & GORDON LLP			KWOK, HELEN C		
1801 EAST 9TH STREET SUITE 1200			ART UNIT	PAPER NUMBER	
	O, OH 44114-3108		2856		
			DATE MAILED: 03/03/2004	4	

Please find below and/or attached an Office communication concerning this application or proceeding.

### Diffice Action Summary Diffice Action Summary		Application No.	Applicant(s)				
Helen C. Kwok Petriod for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE of this COMMUNICATION. - Extensions of this may be available under the precisions of 37 CFR 1.134(a). In or event, however, may a reply be timely filed - If the petriod for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days, will be considered time.) - If the petriod for reply specified above, the nearine stations petriod may be available under the procession of 37 CFR 1.134(a). In or event, however, may a reply be timely filed - If the petriod for reply specified above, the nearines of 37 CFR 1.134(a). In or event, however, may a reply be timely filed - If the petriod for reply specified above, the nearines station petriod reply with the station pays and will apply ad will apply and will apply the file petriod for reply specified above, the nearines date, and the petriod of the petriod for reply will be station and the petriod of the scientification. - Failure to reply within the sector extended petriod for reply will be station and the petriod of the scientification. - Failure to reply within the sector extended petriod for reply will be station and the scientification. - Failure to reply within the sector extended petriod for reply will be stationary to the communication. - Failure to reply within the sector extended petriod and the scientification of the scientification is petriod. - Failure to reply will be stationary to reply within the stationary to reply within the stationary time. - Failure to reply will be stationa		10/619,269	BABA ET AL.				
- The MALING DATE of this communication appears on the cover sheet with the correspondence address - Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MALING DATE OF THIS COMMUNICATION. • Extensions of them may be available under the previous of 37 CFR 1.13(a). In no event, however, may a reply be limely filed after SX (b) MCNTR's from the making date of this communication. • Extensions of them may be available under the previous of 37 CFR 1.13(a). In no event, however, may a reply be limely filed after SX (b) MCNTR's from the making date of this communication. • Flower of the reply is specified above, the maximus habitory period within the studiesty middle days and will be considered timely. • Flower of the reply is specified above, the maximus habitory period will be studied by the studiesty of the part of the previous of the provious of the provious of the specified above, the maximus habitory period will be studied and the scenario of the provious of the specified of this communication. • Flower of the specification is in condition for allowance of the specification of the maximus of the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims • A) ☐ Claim(s) 1-17 is/are pending in the application. • A) Of the above claim(s) 1-11 is/are withdrawn from consideration. • Claim(s) 1-17 is/are allowed. • Claim(s) 1-17 is/are objected to. • Claim(s) 1-17 is/are objected to. • Claim(s) 1-17 is/are objected to restriction and/or election requirement. • Application Papers • O ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. • Application Papers • O ☐ The ordinary of request that any objection to the drawing(s) be held in abovence. See 37 CFR 1.121(d). • The ordinary of the priority documents have been received. • Certified copies of the priority documents have been received. • Certified copies of the priority documents have been received in Applica	Office Action Summary	Examiner	Art Unit				
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. Discretions of time may be available under the provisions of 37 CFR 1.135(a). In ne event, however, may a reply be timely filled Eithe period for reply specified above, the maximum stationary period will apply and will expire SIX (MONTRS from the mailing date of this communication. Failure be reply within the set or asterded period for reply will, be statingly period will apply and will expire SIX (MONTRS from the mailing date of this communication. Failure being within the set or asterded period for reply will, be statingly and will expire SIX (MONTRS from the mailing date of this communication. Failure being within the set or asterded period for reply will, be statingly expended will expire set to the mailing date of this communication. Failure being within the set or asterded period for reply will, be stating as the set of the communication, even if timely filed, may reduce any extended station is replaced. This action is FINAL. 2b)		Helen C. Kwok	2856				
THE MAILING DATE OF THIS COMMUNICATION. Exercision drift may be servible under the provisions of 3° CFR 1.13(a). In no event, however, may a reply be timely filed after 5K (0) MONTHS from the mailing date of this communication. If the provision traph specified bere is the state his (3) days, are reply within the state or provision of the provision of the contraction of the provision of the pr							
1) Responsive to communication(s) filed on	THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any						
2a) ☐ This action is FINAL. 2b) ☐ This action is non-final. 3) ☑ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) ☑ Claim(s) 1-17 is/are pending in the application. 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration. 5) ☐ Claim(s) ☐ is/are allowed. 6) ☐ Claim(s) ☐ is/are rejected. 7) ☑ Claim(s) 12-17 is/are objected to. 8) ☐ Claim(s) ☐ are subject to restriction and/or election requirement. Application Papers 9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on ☐ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☒ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☒ Certified copies of the priority documents have been received in Application No. 09/874,703. 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	Status						
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-17 is/are pending in the application. 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) is/are rejected. 7) Claim(s) is/are rejected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 09/874,703. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	1) Responsive to communication(s) filed on	_•					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-17 is/are pending in the application. 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration. 5) Claim(s)	2a) This action is FINAL. 2b) This	action is non-final.					
Disposition of Claims 4) □ Claim(s) 1-17 is/are pending in the application. 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration. 5) □ Claim(s) is/are allowed. 6) □ Claim(s) is/are rejected. 7) □ Claim(s) 12-17 is/are objected to. 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheel(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☑ All b) □ Some * c) □ None of: 1. □ Certified copies of the priority documents have been received. 2. ☑ Certified copies of the priority documents have been received in Application No. 09/874,703. 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
4)	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
4a) Of the above claim(s) 1-11 is/are withdrawn from consideration. 5) □ Claim(s) is/are allowed. 6) □ Claim(s) is/are rejected. 7) ☒ Claim(s) 12-17 is/are objected to. 8) □ Claim(s) 12-17 is/are objected to. 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☒ All b) □ Some * c) □ None of: 1. □ Certified copies of the priority documents have been received. 2. ☒ Certified copies of the priority documents have been received in Application No. 09/874,703. 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	Disposition of Claims						
5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) is/are rejected. 7) ☒ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☒ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☒ Certified copies of the priority documents have been received in Application No. 09/874.703. 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	4) Claim(s) 1-17 is/are pending in the application.						
6	4a) Of the above claim(s) <u>1-11</u> is/are withdrawn from consideration.						
7) □ Claim(s) 12-17 is/are objected to. 8 □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9 □ The specification is objected to by the Examiner. 10 □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☑ All b) □ Some * c) □ None of: 1. □ Certified copies of the priority documents have been received. 2. ☑ Certified copies of the priority documents have been received in Application No. 09/874,703. 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	5) Claim(s) is/are allowed.						
8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 09/874.703. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	6) Claim(s) is/are rejected.						
Application Papers 9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☒ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☒ Certified copies of the priority documents have been received in Application No. 09/874,703. 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.		7) Claim(s) <u>12-17</u> is/are objected to.					
9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 09/874,703. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	8) Claim(s) are subject to restriction and/or election requirement.						
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☒ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☒ Certified copies of the priority documents have been received in Application No. 09/874,703. 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	Application Papers						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 09/874,703. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	9) The specification is objected to by the Examiner.						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 09/874,703. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some coll None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 09/874,703. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 09/874,703. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.							
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 09/874,703. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s)	11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
a)	Priority under 35 U.S.C. § 119						
 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 09/874,703. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s)							
 2. Certified copies of the priority documents have been received in Application No. 09/874,703. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s)							
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s)							
application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s)							
* See the attached detailed Office action for a list of the certified copies not received. Attachment(s)							
Attachment(s)							
	See the attached detailed Office action for a list of the certified copies not received.						
	Attachment(s)						
1 - 1							
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)							
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 7/14/03. 5) Notice of Informal Patent Application (PTO-152) 6) Other:							
U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04) Office Action Summary Part of Paper No./Mail Date 02252004	U.S. Patent and Trademark Office		art of Paper No./Mail Date 02252004				

DETAILED ACTION

Applicant's election without traverse of Group II (Claims 12-17) filed February 9,
 acknowledged.

Claims 1-11 are withdrawn from further consideration pursuant to 37 CFR
 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse filed February 9, 2004.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/874,703, filed on June 5, 2001.

Claim Objections

4. Claims 12-17 are objected to because of the following informalities. Appropriate correction is required.

In claim 12, line 20, the phrase "at the" should be changed to – at an --. In line 29, what is the word "their" referring to?

In claim 13, line 5, the phrase "said second surface" should be deleted and changed to – a surface – since there is no "surface" cited before. In line 6, the phrase "the outer" should be changed to – an outer --. In line 8, the phrase "the inner and outer

should be changed to - modes --.

ends" should be changed to - inner and outer ends --. In line 11, the word "models"

Page 3

In claim 14, line 3, the phrase "the remaining" should be deleted.

In claim 15, line 17, the word – first – should be inserted before the word "piezoelectric" to provide better clarification. In lines 31-32, the phrase "and a second … element," should be deleted since this appears to be a duplication of the previous line that has aiready being claimed. In line 34, the phrase "at the" should be changed to – an exterior --. In line 43, what is the word "their" referring to?

In claim 16, line 6, the phrase "the outer" should be changed to – an outer --. In line 8, the phrase "the inner and outer ends" should be changed to – inner and outer ends --.

In claim 17, line 3, the phrase "second piezoelectric element having" should be deleted. In line 4, the phrase "said second surface" should be changed to – said first surface --. In line 4, the phrase "said first piezoelectric element" should be changed to – said second piezoelectric element --.

Conclusion

5. This application is in condition for allowance except for the formal matters as set forth above.

Prosecution on the merits is closed in accordance with the practice under *Ex* parte Quayle, 1935 C.D. 11, 453 O.G. 213.

Application/Control Number: 10/619,269

Art Unit: 2856

A shortened statutory period for reply to this action is set to expire **TWO**

MONTHS from the mailing date of this letter.

6. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Helen C. Kwok whose telephone number is (571) 272-

2197. The examiner can normally be reached on 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Helen C. Kwok

Page 4

Art Unit 2856

hck

February 25, 2004